

Dakota, 1 to 23 in.; Nebraska, $\frac{1}{2}$ to $8\frac{1}{2}$ in.; Kansas, $1\frac{1}{4}$ to 3 in.; Colorado, 24 in. on summit of Pikes Peak; Montana, 1 in. at Virginia City; Utah, 3 to 8 in.; Nevada, trace to 7 in.; California, 1 in. at San Geronio, near Visalia at an elevation of 3,000 ft., 20 in., and at 11,000 ft., 108 in.

Snow from a cloudless sky.—Milwaukee, Wis., 10th; Burlington, Vt., 19th.

Floods.—Los Angeles, Cal., 20th, mountain streams badly swollen from heavy rains, washing away roads and bridges and interrupting rail-road communication for 36 hours. Phoenix, Ariz., 29th, unusually heavy rain-storm, river rose ten feet in two days, causing slight damage. Cape May, N. J., 14th, city flooded by high tides, submerging rail-road tracks, extinguishing locomotives' fires, stopping trains and causing passengers to be brought to the city in boats; two hundred yards of sea-wall washed away. Morgantown, West Va., 25th, the inner wall of canal-lock, near Hoard's Rock, partly carried away by the freshet.

Droughts.—San Antonio, Tex., 1st, everything suffering for want of rain; the present drought is unprecedented, its severity causing a check upon immigration. Melissa, Tex., 18th to 23rd, streams mostly dried up and also wells, cisterns and springs.

RELATIVE HUMIDITY.

The percentages of mean relative humidity for the month range as follows: New England, 73 to 83; Middle Atlantic States, 70 to 84; South Atlantic States, 70 to 87; Eastern Gulf States, 76 to 86; Western Gulf States, 62 to 81; Ohio valley and Tennessee, 66 to 78; Lower Lake region, 72 to 82; Upper Lake region, 69 to 81; Upper Mississippi valley, 66 to 74; Missouri valley, 67 to 94; Red River of the North valley, 98 to 99; Eastern Rocky Mountain Slope, 52 to 69; Texas, 20 at Stockton to 83 at Rio Grande; Western Plateau, 43 to 75; California, 68 to 84; Oregon, 78 to 86. *High stations* report the following averages not corrected for altitude: Pike's Peak, 70.1; Denver, 58.8; Cheyenne, 47.9; Virginia City, 62.8; Santa Fe, 49.9; Mt. Washington, 86.4 per cent.

WINDS.

The prevailing winds, at the Signal Service stations, are indicated on chart No. II by the arrows, which fly with the wind. The *maximum* hourly velocities, as recorded by self-registers, have been noted in descriptions of the movements of areas of low and high pressure.

Total Movements of the Air.—The following are the *largest* total movements recorded in miles at the Signal Service stations during the month: on the summit of Pike's Peak, 20,984 miles; Sandy Hook, 12,066; Thatcher's Island, 11,455; Cape May, 11,387; Indianola, 10,739; Milwaukee, 10,700; Cape Lookout, 10,414; Kitty Hawk, 10,324; Sandusky, 10,012; Barnegat, 10,005; Wood's Holl, 9,930; Cape Henry, 9,710; Cheyenne, 9,502; Fort Sill, 9,144; Eastport, 8,868; Cape Hatteras, 8,843; Breckenridge, 8,728; Dodge City, 8,646. The *smallest* are: Deadwood, 1,740 miles; Visalia, 1,769; La Mesilla, 2,138; Augusta, 2,194; Lynchburg, 2,362; Uvalde, Tex., 2,794; Nashville, 2,817; Baltimore, 3,005; Silver City, N. M., 3,080; Virginia City, 3,078; La Crosse, 3,156; Los Angeles, 3,387; Savannah, 3,500; Eagle Pass, Tex., and Salt Lake City, 3,604; Fort Buford, Dak., 3,606; Laredo, 3,644; Boise City, 3,707; San Antonio, Tex., 3,727; Springfield, Mass., 3,811; Charlotte, N. C., 3,946.

Local Storms.—Winnemucca, Nev., 16th, p. m., a severe whirlwind passed from southwest to northeast, causing considerable damage, track one mile wide and lasting fifteen minutes. Colorado Springs, Col., 28th, violent gale from the west, destroying fences, signs and buildings; at a point 12 miles north of station a parlor car and one engine were lifted from the track and thrown down an embankment. Renick, Randolph Co., Mo., 9th, a severe tornado passed near the town at about 4 p. m., causing great havoc. The storm first appeared in the shape of a dense rolling cloud, hiding the sun and making it appear for miles as dark as night. The first warning of the tornado was signaled by a little black speck to the south-east of the town, which gradually grew larger until it seemed to cover the whole heavens, when the wind increased to hurricane violence. Many buildings were literally torn to pieces; fences and grain-stacks scattered in every direction, and portions of the railroad track torn up and carried great distances. Several animals were killed outright and many persons badly injured. The track of the storm was very narrow and the storm lasted but a few moments. Parker's station, Scott Co., Mo., 10th, a severe wind-storm passed over this point between twelve and one o'clock p. m., destroying several large sheds, each 100 feet in stored length, with staves, scattering the material in every direction. Two buildings were unroofed, large trees were uprooted and many fences and outbuildings entirely destroyed. Burlington, Vt., 24th, very severe wind-storm, snow piled in heavy drifts, several sheds and other buildings blown down and much damage to other property.

Sand-storms.—Coleman, Tex., 4th and 9th; Fort Garland, Col., 8th; Yuma, Ariz., 24th and 25th—very violent.

VERIFICATIONS.

Indications.—The detailed comparison of the tri-daily indications for December, with the telegraphic reports for the succeeding twenty-four hours, shows the general percentage of verifications to be 85.7 per cent. The percentages for the four elements are: Weather, 88.1; Direction of the Wind, 81.5; Temperature, 87.7; Barometer, 85.4 per cent. By geographical district they are for New England, 89.4; Middle States, 84.7; South Atlantic States, 85.1; Eastern Gulf States, 85.9; Western Gulf States, 85.6; Lower Lake region, 87.8; Upper Lake region, 84.4; Tennessee and the Ohio valley, 83.9; Upper Mississippi